## Table 3.--Geologic setting and sample data for Tables 1 and 2.

## Localities are shown in Figures 1, 2, 3, 4, 5. Comments within brackets under <u>Description of Sample</u> refer to minerals identified by x-ray diffraction and/or thin section examination.

			minerals identified by x-ray c	iiiiaction and	701 61121	Section examination.
	Locality	Location	Geologic Setting	Sample No.	Field	O. Description of Sample
	1.1	Iliamna D-4 quad., 1000 feet	Small exposure of sheared diorite	1	66AR114	A Selected sample of pyritized diorite
		N. 55° E. of Chekok Point	juxtaposed with banded chert	2	66AR114	1B Selected sample of pyritized diorite
	2	Iliamna D-3 and D-4 quads., see figure 2	Coarse-grained granodiorite and quartz monzonite capped by Tertiary volcanics	No bedrock	analyse	S
	3	Iliamna C-3 quad., 0.4 mile S. 25°W. from mouth of Iliamna River	Metavolcanics intruded by quartz diorite	3	66AR138	pyrite. Sample taken from 1- to 2-foot-wide shear zone
	4	Iliamna C-3 quad., see figure 3	Altered hornblende-biotite quartz diorite cut by shear zones and pyritized felsic dikes	5 6 7	66AR140 66AR140 66AR141	pyrite /quartz, sericite, plagioclase, chlorite/ Selected sample representative of pyritized felsic dike
	5	Iliamna C-3 quad., see figure 3	Bedrock covered by glacial moraine, probably is quartz diorite which is capped, to west, by Tertiary volcanics	No bedrock	analyse	s
	6	Iliamna C-3 quad., see figure 3	Extensively altered intrusive, probably hypabyssal; probable fault zone, cut by mafic dike	8 9 10	66ASj77	scattered flakes of molybdenite /quartz, kaolinite, andalusite, pyrite, molybdenite, barite, rutile, zircon/ Selected sample of bleached and pyritized intrusive
	7	Iliamna C-4 quad., see figure 3	Subhorizontal graywackes and conglomerate cut by small altered intrusives	11	66AS j92	Selected sample of pyritized and iron-stained intrusive
• •	8	Iliamma C-4 quad., see figure 3	Volcanic flow breccias, volcanic conglomerates, and mafic flows. Local zones of iron staining	No bedrock	analyse	s ,
	9 .	Iliamma C-4 quad., see figure 3	Metavolcanics cut by granitic intrusive. Igneous breccia	No bedrock	analyse	es .
	10	Iliamna C-4 quad., see figure 3	Altered granitic rock, cutting metavolcanics; mafic dikes cutting granitic intrusive	12 13 14 15	66AR129 66AR129 66AR129	Composite grab sample of iron-stained rock from 2-foot-wide shear zone in intrusive  Grab sample of bleached and pyritized <u>i</u> ntrusive
	11	Iliamma C-3 quad., see figure 3	Quartz diorite intruding mafic volcanic flows. Local pyritization	No bedrock	analyse	5
	12	Iliamna C-3 quad., see figure 4	Hydrothermally altered quartz por- phyry and mafic Tertiary volcanics; capped by tuffs and volcanic con- glomerate. Porphyry believed to intrude the volcanics. Local shear	16 17 18	66AR134	and clots throughout rock  Selected sample of 6-inch-wide light-gray porous altered zone
	•	•	zones, with associated brecciation and alteration. Alteration consists chiefly of quartz, sericite, and pyrite with local kaolinite. Occasional specks of chalcopyrite	19	66AR134	altered shear zone in volcanics /quartz, sericite, kaolinite, pyrite, calcite/
			disseminated in porphyry. Porphyry may have originated as a rhyolitic hypabyssal intrusive. In many cases alteration is so complete that	20 21 22	66AR134 66AR135	Selected sample of iron-stained altered igneous rock containing 1/8- to 1/2-inch pyrite stringers /quartz, sericite, pyrite/9 Pan concentrate from 1- to 2-foot-wide limonitic gouge zone in
	,		it is difficult to determine if the original rock was part of the volcanic series or quartz porphyry.  Such rocks are referred to here as	23	66AR135	/gouge: quartz, sericite, pyrite/
			altered igneous rock	24	66AR135	

## Table 3.--Continued

Locality	Location	Geologic Setting	Sample No.	Field No.	Description of Sample
12	Iliamna C-3 quad., see	' (as above)	25	65AR1355	Selected sample of pyrite-bearing altered volcanic rock
	figure 4		26	66AR1360	Grab sample of altered igneous rock containing disseminated pyrite
			27 28	65AR1358 65AR1359	Selected sample of gray quartz vein in altered igneous rock Selected sample of pyrite veinlets in altered igneous rock
			29	66AR1330	/quartz, sericite, pyrite, trace of kaolinite/ Selected sample of pyritized mafic intrusive /quartz, chlorite,
			30	66AR1325	plagioclase, pyrite, calcit <u>e/</u> Grab sample of alte <u>r</u> ed (bleached an <u>d</u> coated with iron oxides)
			31	66AR1310	quartz porphyry /quartz, sericite/ Grab sample of altered quartz porphyry containing disseminated
			32	66AR1308	pyrite Grab sample of altered quartz porphyry containing disseminated
			33	66AR1307	pyrite Selected sample of iron-oxide stained breccia from 2-inch shear
					zone in quartz porphyry
			34	66AR1304A	Grab sample of altered quartz porphyry with disseminated pyrite /quartz, plagioclase, sericite, pyrite/
			35	66AR1305	Grab sample of iron-oxide stained altered quartz porphyry <u>quartz</u> plagioclase, sericite; decrease in plagioclase, increase in sericite relative to sample 347
13	Iliamna C-4 quad., Tommy Creek, 4 miles S. 75° E. from mouth of Tommy Creek	Varied sequence of Tertiary volcanic flows and tuffs	No bedro	ck analyses	
14	See figure 1	Quartz diorite of Jurassic age	No bedro	ck analyses	
15	Iliamna B-5 quad., west of Emerald Lake, see figure 5	Chiefly hydrothermally altered rhyolitic tuffs and flows of	36	66AR1435	Grab samples of pyritized and iron-oxide stained rhyolite lithic tuff
	Ellerard bake, see right 5	Tertiary age capped by mafic flows	37	66ASj101A	Grab sample of argillized tuff /kaolinite, quartz, sericite, pyrophyllite, pyrite, possible alunite/
		·	38	66AS j 100B	Grab sample of altered (pyritized) tuff
			39	66AS j 96B	Altered tuff
			40 41	66AR1424 66AR1425	Bleached and iron-stained rhyolite tuff $\overline{/ ext{q}}$ uartz, sericit $\overline{ ext{e}/}$ Altered rhyolite tuff
16	Titana A. C. and annua	Durkella fault annua batuara	42	66AR1192	Grab sample of iron-stained and pyritized Tertiary volcanic rock
16	Iliamna A-5 quad., approx. 1 mile southeast of Mirror	Probable fault contact between Tertiary volcanics and older	43	66AR1192	do
	Lake; see figure 1	metavolcanics. Metavolcanics cut by granodiorite	44	66AR1198B	Blue altered rock found as rubble on possible fault zone /dumortierite, allevardite , illite/
17	Iliamna A-4 quad., samples 45-48 located at approxi-	Zone of igneous breccia 100-150- feet wide produced by quartz	45	66AR1418A	Selected sample from 6-inches to 2-feet-wide malachite-stained fissure in quartz diorite. Sulphides (chiefly pyrite and
	mately 1500 feet in altitude	diorite intruding gabbro(?).			chalcopyrite) and chlorite replace quartz diorite
	on north side of valley wall, Lat. 59°14'45", Long. 54°28'	Breccia locally replaced by sulphides, chlorite, biotite,	46 47	66AR1418B 66AR1419	do Grab sample from adit of sulphides replacing breccia $\sqrt{s}$ sulphides,
	55". Sample 49 located on	quartz, and minor amphibole.			chlorite, biotite/
	south side of valley wall	Local iron oxide and malachite staining. Partially caved adit	48	66AR1420	Grab sample of sulphides in chlorite-rich breccia <u>/chlorite</u> , quartz, muscovite, pyrite, chalcopyrite, malachit <u>e</u> /
	,	driven 15 feet into breccia	49	66AR1421	Grab sample of pyrite-bearing fine-grained quartz diorite from south side of creek
18	Iliamna A-4 quad., on east tributary to Moraine	Undifferentiated Tertiary vol- canics, chiefly mafic flows	No hadra	ck analyses	
	Greek, ser-figure-l	Cantes, Chicity mailt flows	No bearo	on analyses	
19	Iliamna A-4 quad., ridge	Metavolcanics cut by quartz	50	66AR1226	Grab sample of silicified quartz monzonite(?) /quartz, hematite,
.,	northeast of Iron Springs	monzonite, granodiorite.		66AR1243	and minor alunite/ Grab sample of silicified quartz monzonite(?) /quartz, hematite,
	Lake. See figure 6	Extensive areas of iron gossan	51		and minor alunite/
			52 53	66AR1221 66AR1217A	Grab sample of altered and brick-red iron-stained metavolcanic Grab sample of altered metavolcanic rock